DOCUMENT RESUME

ED 266 595 EC 182 010

AUTHOR Trach, John S.; Rusch, Frank R.
TITLE Research and Trends in Employment of Adolescents with Handicaps.
PUB DATE 15 Mar 85
NOTE 25p.; Document contains small print.
PUB TYPE Guides - Non-Classroom Use (055) -- Information Analyses (070)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Adolescents; *Disabilities; Educational Trends; Education Work Relationship; *Employment; *Models; *Secondary School Curriculum; *Teaching Methods

ABSTRACT

The paper focuses on current curriculum programming trends that appear to be facilitating the transition of adolescents with handicaps into everyday community settings. Traditional curriculum models, such as the eliminative education model and the developmental education model, have failed to enhance or improve attainment of integration into the community: recent attempts to focus curriculum outcomes on the adult life or community-referenced curriculum models appear more promising. Similarly, traditional instruction strategies, such as step training, appear to only partially prepare students for employment, whereas new curriculum models seem to incorporate strategies such as self-control, which promote maintenance and generalization. The newer curricular focuses and recent advances in teaching strategies may be key factors that ensure integration and transition into community work settings. Six pages of references conclude the report. (Author/CL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

March 15, 1985

ED266595

Research and Trends in Employment of Adolescents with Handicaps

John S. Trach

and

Frank R. Rusch

Running Head: EMPLOYMENT OF ADOLESCENTS

EC182010

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
Frank R Rusch
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Abstract

This paper focuses on current, curriculum programming trends that appear to be facilitating the transition of adolescents with handicaps into "everyday" community settings. Traditional curriculum models have failed to enhance or improve attainment of integration into the community; recent attempts to focus curriculum outcomes on the adult life or community-referenced curriculum models appear more promising. Similarly, traditional instructional strategies appear to only partially prepare students for employment, whereas new curriculum models seem to incorporate strategies, such as self-control, which promote maintenance and generalization. These newer curricular focuses and recent advances in teaching strategies may be key factors than ensure integration and transition into community work settings.

Research and Trends in Employment of Adolescents with Handicaps

In our public schools, efforts have been directed toward teaching students with handicaps in "everyday" community settings. This integration has gone beyond the physical placement of handicapped youth in educational settings with nonhandicapped youth. Programs that create opportunities for interaction between handicapped and nonhandicapped persons across a variety of community settings are becoming increasingly popular (Wilcox & Bellamy, 1982). Recently, the notion of community integration was defined as "the process of uniting handicapped and nonhandicapped individuals as equal members jointly participating in recreational, residential, and employment settings" (Rusch, Chadsey-Rusch, White, & Gifford, 1985, p. 120). To complement and facilitate this trend toward integration, educational goals have begun to focus upon preparing students to function in "a variety of post-secondary vocational, domestic, and community environments" (Wilcox & Bellamy, 1982, p. 6).

Recreational, residential, and employment environments hold equal importance in defining the community and thus are difficult to consider separately when discussing community integration. However, the employment component of the adult life curriculum model as a method of integrating individuals with handicaps into the community work force, serves as the primary focus of this paper (Rusch et al., 1985). We will discuss research and trends in establishing goals for employment outcomes, including the varying instructional methodologies used to attain those goals, in the context of both traditional and community-referenced adult life curriculum models. Because the ultimate goal of transition to community living cannot be dissected from discussion of other points in employment edu-

cation, the concept of transition is used to integrate and give meaning to these efforts in the education of persons with handicaps for employment. To this end, we will examine the adult life curriculum model and its accompanying instructional strategies with respect to their effectiveness in facilitating transition from secondary school to adult life in the community.

Transition

The transition of the adolescent with handicaps into the world of work and productivity must be a planned endeavor. Transition plans need to be developed when a child first enters school, then continually refined and revised as students progress through their public school experience (Bates, 1984; Brown, Pumpian, Baumgart, Vandeventer, Ford, Nisbet, Schroeder, & Gruenewald, 1981; Rusch & Chadsey-Rusch, in press). At the secondary level, transition planning must be a very active component of the student's program (Wilcox & Bellamy, 1982). Wehman's (1984) definition of vocational transition typifies this trend of carefully transition:

> Vocational transition is a carefully planned process, which may be initiated either by school personnel or adult service providers, to establish and implement a plan for either employment or additional vocational training of a handicapped student who will graduate or leave in three to five years; such a process must involve special educators, vocational educators, parents and/or the student, and adult service system representative, and possibly an employer. (p. 2-3)

Will describes three stages of transition: (a) school instruction, (b) plans for the transition process, and (c) placement into meaningful employment (Will, 1984). She describes transition as a "bridge" from the security and structure of high school to the opportunities and risks of adult life, stressing that any bridge must have a strong foundation at either end. Employment should be the outcome of education and transition.

According to the Office of Special Education and Rehabilitative Services (OSERS), the goal of transition is to enable the handicapped person to obtain a job either immediately after leaving school or after a period of post-secondary education or vocational services, regardless of the presence, nature, or severity of a disability. The OSERS transition model contains three levels. The first involves movement from school either without services or with only those that are available to the population at large; the second involves use of time-limited services that are designed to lead to independent employment at termination of service; and the third involves the use of ongoing services for those individuals who do not move to unsupported work roles (Will, 1984).

During secondary education, the focus of transition must first be on developing a strong foundation for the public school's end of the "bridge". Wehman (1984) identified three necessary elements of a secondary special education program: (a) a functional curriculum, (b) an integrated school environment, and (c) community-based service delivery. Through such a program, potential employers will be able to observe the students' competent performance of community jobs (Brown, 1984). The next step in the transition involves active negotiation and coordination with adult service agencies.

Though the importance of carefully planned transition to community life for adolescents with handicaps is obvious, current investigations and discussions of curriculum model development (Brown, 1984; Wehman, 1984; Will, 1984) emphasize the need to address the woeful lack of transition planning.

Curriculum Models

Several widely used curriculum models for the instruction of students who are handicapped have been developed in recent years. These models can be divided into traditional models and adult life models. Traditional models have a long standing history and vary greatly in their theoretical orientations. The traditional models include (a) the eliminative education model, (b) the developmental education model, and (c) the basic skills or early academic content model. Adult life models are generally community-referenced, emphasizing the handicapped individual's present or future functioning needs in the community. These models consider both transition and integration and have been well represented by Bates (1984; in press), Brown, Branston, Hamre-Nietupski, Pumpian, Certo, & Gruenewald (1979), Rusch (1983), Wehman, Renzaglia, and Bates (1985), and Wilcox and Bellamy (1982).

Traditional Models

The first of the traditional models, the eliminative education model, may be more of a process which places greatest emphasis upon the elimination of inappropriate behaviors of persons with handicaps than a comprehensive curriculum model (Barrett, 1979). Historically, individuals with handicaps were labelled and removed from society into segregated facilities (Rusch et al., 1985). The eliminative model advocates such segregation until maladaptive behaviors are reduced to a socially acceptable level. At the secondary level this segregation further delays meaningful instruction. Indeed, in its emphasis on controlling inappropriate behaviors, the eliminative process neglects both the development of appropriate behaviors and community integration outcomes. Consideration of transition and generali-

zation based on anything other than functional skills in the normal environment is reduced to secondary emphasis. Because segregation promotes neither transition to the community nor generalization of skills to community settings, these aims are given secondary emphasis.

The second traditional model, the developmental education model, has its roots in developmental theory (Bricker, Bricker, Iacino, & Dennison, 1976; Cohen, Gross, & Haring, 1976; Haring & Bricker, 1976). This model holds that all handicapped children proceed through the same developmental stages that characterize normal development. This developmental sequence is usually broken down into gross motor, fine motor, perceptual, cognitive, social, and self-help domains. There are several serious problems with this model, particularly as children grow and mature into adolescents and adults. The central premise that handicapped children must go through the same developmental sequence as their nonhandicapped peers, but at a much slower pace, lacks empirical support since adolescents with handicaps usually develop differently than their nonhandicapped peers (Brown, et al., 1979; Wilcox & Bellamy, 1982). It is also unlikely that development will occur at the same rate across all domains. Wilcox and Bellamy (1982) cite the nonexistance of functional alternatives when a child is incapable of performing the normal requisites of a developmental sequence (i.e., inability to walk). Practically, there is not enough time for an adolescent in a secondary program to progress through the developmental stages he/she may not have mastered. Therefore, strict adherance to developmental sequence in educational planning can result in instructional objectives that are sequenced according to developmental stage learning and which may be nonfunctional and inappropriate given the student's age and pattern of individual strengths and weaknesses (Certo,

1983; Wehman, et al., 1985; Wilcox & Bellamy, 1982). For example, a developmentally-oriented education program for a severely handicapped student may emphasize the development of gross and fine motor skills as prerequisites to development in other domains. As a result, this student may master completion of a formboard or pegboard, but may lack grooming, toileting, and appropriate leisure skills. It is unlikely that the community will accept an 18-year-old student who has limited grooming skills, cannot toilet himself, and plays with tinker toys. Thus, the developmental education model may hinder an individual's transition into adult life as a participant in work, leisure, and residential settings, offering instruction appropriate for his developmental stage but leaving him unfamiliar with the social norms of their same-aged peers and sadly unprepared for adult life.

The third traditional model evolves from the early academic or "basic skills" approach, in which the handicapped child's development in traditional academic areas is compared with that of his nonhandicapped peers. Wilcox and Bellamy (1982) cite three major problems with this approach: (a) the approach burdens the student with the responsibility to integrate the "basic skills" to complex community settings, (b) the emphasis is on the specific skill (e.g., making change or telling time) as opposed to the function of the skills taught (e.g., purchasing items or managing time throughout the day), and (c) there is insufficient time to develop basic academic skills to a level of competent and functional application. Students with handicaps may never progress beyond the prerequisite academic skills. Therefore, this model shares the weakness identified with the developmental model discussed earlier. These problems are sufficient to bar consideration of the early academic model as a viable curriculum strategy because the model does little to actively promote integration and impedes transition into normal community settings.

Adult Life Model

The adult life model represents the current trend in curriculum development. The adult life model examines the demands the student will face as an adult and determines the curriculum accordingly, rather than paralleling the curriculum appropriate to the development of nonhandicapped peers. The model is referenced to the student's own community to maximize relevance and individualization. Several such models have been described in the literature (Bates, in press; Brown, et al., 1979; Wehman, et al., 1985; Wilcox & Bellamy, 1982). These models share the main thrust of integration of the handicapped individual as an actively contributing member of the community. In the same spirit, Bates (in press) prefaces his service delivery model for "Project EARN" with the program philosophy of zero exclusion, integration, and normalization.

The Adult life model prescribes the sequence of secondary school preparation for employment presented in Table 1. Step 1 is an ecological or environmental inventory of potential employment possibilities within the particular individual's community. These inventories reflect jobs that are presently available in the community where the student will ultimately be an active participant.

Step 2 is a job skill inventory that assesses job requisites and delineates necessary job skills within a job category. Ballmore and Brown (1978) developed a "Job Skill Inventory" to break down identified jobs down into instructionally manageable components. Wilcox and Bellamy (1982) proposed the development of a "catalog" to delineate job related activities within domains (vocational, independent living, and leisure) and across environments (home, school, and community). Both methods are geared toward identifying the activities, requisite skills, or survival skills

necessary for successful job placement. These skills may not be directly related to a specific job, but may be work related skills (e.g., money, transportation).

Step 3 is a determination of work performance objectives and task analysis which further defines the structure of the curriculum from which instructional choices can be made. Because these choices are value judgments (Wilcox & Bellamy, 1982), they should be socially validated (Rusch, 1983; Wehman, et al., 1985). That is, objectives selected from the curriculum must reflect not only student potential and interest, but also employment goals that are both supported by parents and available in the community. Thus, Step 4, parent consultation, represents the adult life model's commitment to strong parental and student involvement in selecting job skills to be taught and in developing the student's Individualized Education Program.

Insert Table 1 here

Summary. This section introduced several curriculum models that have been the traditional focus of educators as well as a relatively new model, the adult-life model, that suggests a new approach is needed. This approach is directed toward current and future environments. A distinguishing feature of this model is the process used to establish educational outcomes. The survey-then-validate approach, which enjoins the parent's and the student's expectations appears unique. The next section of this paper identifies new instructional strategies that warrant consideration by educators as they promote the students independence and adaptability in current and future settings.

Instructional Strategies

As community-referenced curricula increase in popularity, more training is now taking place in community-based settings (refer to Table 1, Step 5). The primary rationale for providing instruction in the community is to minimize the differences between training and placement settings, thus eliminating some of the problems of generalization that may limit integration opportunities of persons with handicaps (Brown et al., 1979). Physical integration is attained by teaching individuals with handicaps in settings in which they will live, work, and recreate. Instruction is geared toward achieving integration by active participation, enabling the handicapped individual to maintain a target placement within, for example, the employment setting (Step 6) through performance of clearly specified and trained job skills (Step 7). When these job skills are performed to an acceptable level, effort is made to withdraw instruction in a manner that results in the target behaviors being controlled by natural reinforcers (Step 8).

A new instructional technology, which is tied to the adult life model, has evolved to better address the trend toward integrating handicapped individuals into the work community. In addition to traditional methods of instruction, which are crucial in the acquisition phase of job skill training, this new technology is aimed at the development of autonomy and adaptability, reflecting the transition and integration phases of the adult life model (Gifford, Rusch, Martin, & White, 1984; Rusch, Gifford, & Chadsey-Rusch, 1984). Autonomy is based on the acquisition of maintenance skills, or the ability to perform vocational skills with minimal supervision. Adaptability is associated with generalization, or the ability to perform vocational skills in nontrained employment settings. Training may differentially

emphasize autonomy and adaptability. If the target work setting is known, emphasis should be placed upon the goals of autonomy; in instances where work placements are not known, adaptability should be the focus of instruction, because this approach teaches students to adapt what they have learned to new situations. However, the overriding emphasis of training for all individuals with handicaps should be to maximize both autonomy and adaptability in the work situation.

Traditional Strategies of Instruction

Rusch (1983) and Wehman (1981) have documented that handicapped individuals are capable of acquiring competencies necessary for employment. A common set of instructional methods have been developed. Snell (1982) described these traditional methods of systematic instruction in relation to general education goals. Many of these same procedures (e.g., task analysis, levels of assistance, contingent and social reinforcement, repeated practice) are routinely employed in vocational training and are described in the literature (Bates & Pancsofar, 1981; Bellamy, Horner, & Inman, 1979; Renzaglia, Bates, & Hutchins, 1981; Rusch & Mithaug, 1980; Wehman, 1981; Wilcox & Bellamy, 1982). The traditional instructional methods used in vocational training are generally divided into two groups; those which facilitate acquisition of job skills, and those which increase productivity (Brown & Pearce, 1970; Cuvo, Leaf, & Borakove, 1978; Gold, 1972; Martin, Pallotta-Cornick, Johnstone, & Goyos, 1980; Renzaglia, Wehman, Schutz, & Karan, 1978; Spooner & Hendrickson, 1976).

Acquisition training usually begins with the development of a task analysis for assessment and teaching (Gold & Pomerantz, 1978; Renzaglia et al., 1981). Arrangement of task materials, devices, or prosthesis for job completion and setting variables must be considered before the actual

training of the task. Training is conducted by either backward or forward chaining or simultaneous instruction across all steps in the task (Bellamy et al., 1979; Renzaglia et al., 1981). Bellamy et al. (1979) recommended using individual instruction, forward chaining, and simultaneous instruction in combination on all steps to teach a task. Their procedure involves four components of training: (a) step training, (b) teaching difficult steps, (c) chain training and (d) setting training.

Step Training involves teaching each step of the task analysis that the worker does not perform correctly 80% of the time. If the student has difficulty meeting this criterion with standard instruction, then difficult steps training is used for more intensive training or job modification, once again aimed at attaining the 80% criterion. These first two steps involve more intensive and consistent reinforcement and assistance than chain training. Chain Training involves teaching larger units of behavior through the use of intermittent reinforcement and assistance. This training utilizes standard training techniques such as levels of assistance, graduated guidance, and prompting (Bates & Pancsofar, 1981; Bellamy et al., 1979; Renzaglia et al., 1981; Rusch & Mithaug, 1980; Snell, 1982; Wilcox & Bellamy, 1982).

The fourth stage of the Bellamy et al. (1979) training model is referred to as setting training. At this level the student has already learned the task in an instructional situation and must now perform it under the more natural contingencies of the work environment. Bates (in press), Wehman et al. (1985), and Wilcox and Bellamy (1982) all point to the necessity of bringing appropriate behaviors for employment and community living under the direct control of natural contingencies. Wehman et al. (1985) caution teaching student dependence on the teacher, which is

usually established during acquisition training. Traditionally, Steps 5, 7, and 8 in Table 1 utilize these strategies to gradually move the student toward independence.

New Focus for Instruction: Autonomy and Adaptability

A new focus for instruction has been presented in a recent series of articles (Gifford et al., 1984; Rusch et al., 1984; Rusch et al., 1985), that describe the need to focus upon independence and adaptability. By using the terms "autonomy" and "adaptability", instead of maintenance and generalization, this literature now empowers the individual with these attributes rather than recognizing them as a general outcome.

Training toward autonomy involves the use of a) traditional instructional strategies, b) self-control strategies, and c) withdrawal design strategies. Traditional instructional strategies have already been discussed. They include training in community-based settings in order to minimize differences in skill requisites and setting, as well as arrangement of task materials and devices to aid in completion of a task. Self-control strategies teach the individual to regulate his or her own behavior. Antecedent cue regulation, such as using picture cues, is one type of self-control strategy that has shown much promise (Martin, Rusch, James, Decker, & Intol, 1982; Robinson-Wilson, 1977; Spellman, DeBrieve, Jarboe, Campbell, & Harris, 1978). Other common strategies are self-monitoring and self-instruction of behavior (Wehman, Schutz, Bates, Renzaglia, & Karan, 1978; Zohn & Bornstein, 1980). Withdrawal designs consist of systematically withdrawing training components, such as cues or reinforcement and monitoring the independence of the student (Martin et al., 1982; Vogelsberg & Rusch, 1979). Assessing the withdrawal of teaching strategies relates to Step 8 which results in leaving intact the gains of the

teaching process, yet withdrawing all extraneous variables. Three withdrawal designs include (a) the sequential-withdrawal design, which consists of withdrawing selected components of instructional packages in consecutive phases of teaching; (b) the partial-withdrawal design, which consists of withdrawing part or all of the package for one or several different behaviors, persons, or settings; and (c) the partial-sequential withdrawal design, which consists of a combination of the two previous withdrawal strategies (Gifford et al., 1984; Rusch et al., 1984; Rusch & Kazdin, 1981). The two most important features of the withdrawal designs are that (a) the target behavior is maintained through assessment while the teacher withdraws instructional programs from the training situations and that (b) the student learns to maintain appropriate behavior in the target work setting using only naturally occurring contingencies.

Adaptibility is usually associated with general-case programming (Gifford et al., 1984). Horner, Sprague, and Wilcox (1982, p. 63) define general-case programming as "those behaviors performed by the teacher or trainer that increase the probability that skills learned in one training setting will be successfully performed with different target stimuli and/or in different settings from those used during training." In other words, the teacher must select appropriate examples representative of the instructional universe (e.g., selective work setting) and train those examples in a sequence that promotes generalization.

Two key concepts in this process are stimulus class and response class. Stimulus class refers to any group of stimuli that share a common set of stimulus characteristics. To be a member, the stimulus must have all the relevant characteristics of the class. For example, members of the stimulus class, nails, would all possess a common set of attributes (i.e.,

metal, flat head, smooth shaft, point). All stimuli that do not have those attributes (e.g., screws) would be outside this class. A response class is a set of behaviors that produce the same functional outcome. A general case is learned when any instance from a stimulus class prompts the student to demonstrate the appropriate member of a response class. For example, presentation of a member of the stimulus class, nails, prompts the student to select and appropriately use a hammer to pound a nail into a piece of wood. Trained and untrained instances of a stimulus class control trained and untrained members of a response class (Horner et al., 1982, p. 67). General case programming increases the probability of generalized responding (Horner & McDonald, 1982; Rusch et al., 1985; Sprague & Horner, 1984).

Rusch et al., (1984) found a paucity of research focusing upon both autonomy and adaptability. In order to attain both transition and integration of adolescents with handicaps, teachers and researchers must attend to the need for students to perform job skills in natural settings with minimal supervision and to perform tasks across environmental contexts that are different from those in which instruction took place. Integration cannot take place if the presence of the teacher is required to ensure appropriate behavior, or if the target individual is restricted to certain settings or conditions because of situation-specific instructional outcomes.

Summary. The literature on autonomy and adaptability provides new directions for instruction by assigning certain instructional attributes (i.e., autonomy and adaptability) to the individual rather than to the instructional process. Nevertheless, only Wacker and Berg (1983) addressed both concepts of autonomy and adaptability in one study.

There is an obvious need for more research and development in this area. For integration to go beyond physical placement toward independence, and for transition to adult life to be realized, the individual must be more autonomous and adaptable. Acceptance by the community will be judged by demonstration of competence that more closely approximates the expectations of how an active participant of that community functions.

General Summary

This review concentrated on current trends in employment education of adolescents with handicaps. The main focus was realizing the goals of transition and integration into adult life. The current trend of the community-referenced curriculum and community-based instruction attains physical integration, but does not assure a level of independence (autonomy) or performance (adaptability) that may enhance long-term placement in natural settings. Transition becomes more attainable using adult-life curriculum models to minimize the differences between training environments and expected employment environments for performance of learned skills. Both transition and integration are evaluated in reference to the concept of normalization. Normalization is based on the premise that people must learn skills that enhance community acceptance (Nirje, 1969; Wolfensberger, 1972). The key to acceptance will be the performance of the learned skills in the community.

The adult life model discussed addresses transition to adult life and suggests some methods of attaining this goal. However, there is a dearth of instruction that focuses on integration. Acquisition strategies are of limited value. Maintenance and generalization must be considered in the same systematic fashion as acquisition training. At this time, maintenance

and generalization outcomes have received little attention in the employment literature (Horner et al., 1982; Rusch, Martin, & White, in press).

One could conclude from this review than many models of preparation of adolescents with handicaps for employment claim to facilitate for transition and integration. With the exception of Step 8, Table 1 is such a model. The first four steps describe a community-referenced, adult-life curriculum model. Step 5 maximizes transfer and generalization of training (i.e., ones adaptability). Step 6 plans for transition by placing the student in the job he/she would have after graduation, and Step 7 adjusts the training to the new job setting. At this point, unless general case programming is overlayed on Steps 5 and 7, adaptability is limited. Likewise, unless training for autonomy is developed in Step 4 and finalized in Step 8 the individual's integration and transition into adult life my remain at the physical level. Steps 6, 7, and 8 emphasize transition as a concept that must be programmed at the secondary level.

Implementation of the adult-life model and future research activities focusing upon autonomy and adaptability should improve the transition process. Autonomy and adaptability appear to be key factors ensuring adolescents a meaningful place in integrated employment settings. Indeed, instruction should facilitate one's independence and freedom from supervision for all individuals with handicaps.

Footnotes

1. This paper was supported in part by the Office of Special Education and Rehabilitative Services, United States Department of Education pursuant to grant numbers OEG-0082-00415 and OEG-0084-30081. However, the opinions expressed herein do not necessarily reflect the position or policy of the Office of Special Education and Rehabilitative Services, United States Department of Education, nor of the University of Illinois, and no official endorsement should be inferred. Copies can be obtained from either author, Office of Career Development for Special Populations, 345 Education Building, College of Education, 1310 South Sixth Street, Champaign, Illinois, 61820.

2. Special thanks are extended to Lizanne DeStefano for her critical reading of an earlier draft.

References

Barrett, B. (1979). Communitization and the measured message of normal behavior. In R. York & E. Edgar (Eds.), Teaching the severely handicapped, Vol. 4. Columbus, OH: Special Press.

Bates, P. (1984). Vocational curriculum development for persons labeled mentally retarded. Paper presented at the National Symposium on Employment of Citizens with Mental Retardation, Rehabilitation Research and Training Center, Virigina Commonwealth University, Virginia Beach.

Bates, P. (in press). Project EARN (Employment and rehabilitation = normalization): A service delivery model for enhancing competitive employment outcomes for moderately and severely handicapped youth in the public schools. In F. R. Rusch (Ed.), Competitive employment: Service delivery models, methods, and issues. Baltimore: Paul H. Brookes.

Bates, P., & Pancsofar, E. (1981). Longitudinal vocational training for severely handicapped students in the public schools. In R. York, W. K. Schofield, D. J. Donder, D. L. Ryndak, & B. Reguly (Eds.), Proceedings from the 1981 Illinois Statewide Institute for Educators of the Severely and Profoundly Handicapped. Springfield, IL: Department of Specialized Educational Services, Illinois Board of Education.

Belamy, G. T., Horner, R., & Inman, D. (1979). Vocational training of severely retarded adults. Baltimore: University Park Press.

Belmore, K., & Brown, L. (1978). Job skill inventory strategy for use in a public school vocational training program for severely handicapped potential workers. In N. Haring & D. Bricker (Eds.), Teaching the severely handicapped, Vol. III. Columbus, OH: Special Press.

Bricker, D., Bricker, W., Iacino, R., & Dennison, L. (1976). Intervention strategies for the severely and profoundly handicapped child. In N. J. Haring & L. J. Brown (Eds.), Teaching the severely handicapped, Vol. 1. New York: Grune & Stratton.

Brown, J. M. (1984). A model for enhancing the transition of mildly handicapped youth into post-secondary vocational education. In J. Chadsey-Rusch (Ed.), Conference Proceedings from "Enhancing Transition from School to the Workplace for Handicapped Youth". Urbana-Champaign, Illinois: Office of Career Development for Special Populations, University of Illinois.

Brown, L., Branston, M., Hamre-Nietupski, S., Pumpian, I., Certo, N., & Gruenewald, L. (1979). A strategy for developing chronological age-appropriate and functional curricular content for severely handicapped adolescents and young adults. Journal of Special Education, 13, 81-9.

Brown, L., & Pearce, E. (1970). Increasing the production rates of trainable retarded students in a public school simulated workshop. Education and Training of the Mentally Retarded, 5, 15-22.

Brown, L., Pumpian, I., Baumgart, D., Vandeventer, P., Ford, A., Nisbet, J., Schroeder, J., & Gruenewald, L. (1981). Longitudinal transition plans in programs for severely handicapped students. Exceptional Children, 47, 624-631.

Certo, N. (1983). Characteristics of educational services. In M. Snell (Ed.), Systematic instruction of the moderately and severely handicapped (2nd ed.). Columbus, OH: Charles E. Merrill.

Cohen, M., Gross, P., & Haring, N. G. (1976). Developmental pinpoints. In N. J. Haring & L. J. Brown (Eds.), Teaching the severely handicapped, Vol. 1. New York: Grune & Stratton.

Cuvo, A., Leaf, R., & Borakove, L. (1978). Teaching janitorial skills to the mentally retarded: Acquisition, generalization, and maintenance. Journal of Applied Behavior Analysis, 11, 345-355.

Gifford, J. L., Rusch, F. R., Martin, F. R., & White, D. M. (1984). Autonomy and adaptability in work behavior of retarded clients. In N. R. Ellis & N. W. Bray (Eds.), International Review of Research in Mental Retardation, Vol. 12. New York: Academic Press.

Gold, M. (1972). Stimulus factors in skill training of the retarded on a complex assembly task: Acquisition, transfer, and retention. American Journal of Mental Deficiency, 76, 517-526.

Gold, M., & Pomerantz, D. (1978). Issues in prevocational training. In M. Snell (Ed.), Systematic instruction of the moderately and severely handicapped. Columbus, OH: Charles E. Merrill.

Haring, N. G., & Bricker, D. (1976). Overview of comprehensive services for the severely/profoundly handicapped. In N. J. Haring & L. J. Brown (Eds.), Teaching the severely handicapped, Vol. 1. New York: Grune & Stratton.

Horner, R. H. & McDonald, R. S. (1982). A comparison of single instance and general case instruction in teaching a generalized vocational skill. The Journal of the Association for the Severely Handicapped, 7, 7-20.

Horner, R. H., Sprague, J., & Wilcox, B. (1982). General case programming for community activities. In B. Wilcox & G. T. Bellamy (Eds.) Design of high school programs for severely handicapped students. Baltimore: Paul H. Brookes.

Martin, G., Pallotta-Cornick, A., Johnstone, C., & Goyos, A. (1980). A supervisory strategy to improve work performance for lower functioning retarded clients in a sheltered workshop. Journal of Applied Behavior Analysis, 13, 183-190.

Martin, J. E., Rusch, R. R., James, V. L., Decker, P. J., & Trtol, K. A. (1982). The use of picture cues to establish self-control in the preparation of complex meals by mentally retarded adults. Applied Research in Mental Retardation, 3, 105-119.

Nirje, B. (1968). The normalization principle and its human management implications. In R. Kugel & W. Wolfensberger (Eds.), Changing patterns of residential services for the mentally retarded. Washington, D.C.: President's Committee on Mental Retardation.

Renzaglia, A., Bates, P., & Hutchins, M. (1981). Vocational skills instruction for handicapped adolescents and adolescents and adults. Exceptional Education Quarterly, 2, 61-73.

Renzaglia, A., Wehman, P., Schutz, R., & Karan, O. (1978). Use of cue redundancy and positive reinforcement to accelerate production in two profoundly retarded workers. British Journal of Social and Clinical Psychology, 17, 183-187.

Robinson-Wilson, M. (1977). Picture recipe cards as an approach to teaching severely and profoundly retarded adults to cook. Education and Training of the Mentally Retarded, 12, 69-73.

Rusch, F. R. (1983). Competitive vocational training. In M. Snell (Ed.), Systematic instruction of the moderately and severely handicapped (2nd ed.). Columbus, OH: Charles E. Merrill.

Rusch, F. R., Chadsey-Rusch, J., White, D. M., & Gifford, J. L. (1985). Programs for severely mentally retarded adults: Perspectives and methodologies. In D. Bricker and J. Filler (Eds.) The severely mentally retarded: From research to practice. Reston, VA: Council for Exceptional Children.

Rusch, F. R. & Chadsey-Rusch, U. (in press). Employment for persons with severe handicaps: Curriculum development and coordination of services. Focus on Exceptional Children.

Rusch, F. R., Gifford, J. L. & Chadsey-Rusch, J. (1984). Behavioral training strategies and applied research in competitive employment. Paper presented at the National Symposium on Employment of Citizens With Mental Retardation. Rehabilitation Research and Training Center, Virginia Commonwealth University, Virginia Beach.

Rusch, F. R., & Kazdin, A. E. (1981). Toward a methodology of withdrawal designs for the assessment of response maintenance. Journal of Applied Behavior Analysis, 14, 131-140.

Rusch, F. R., Martin, J. E., & White, D. M. (in press). Competitive employment: Teaching mentally retarded employees to maintain their work behavior. Mental Retardation.

Rusch, F. R., & Mithaug, D. E. (1980). Vocational training for mentally retarded adults. Champaign, IL: Research Press.

Snell, M. (Ed.) (1982). Systematic instruction of the moderately and severely handicapped. Columbus, OH: Charles E. Merrill.

Spellman, C., DeBriere, T., Jarboe, D., Campbell, S., & Harris, C. (1978). Pictorial instruction: Training daily living skills. In M. Snell (Ed.), Systematic instruction of the moderately and severely handicapped. Columbus, OH: Charles E. Merrill.

Spooner, F., & Hendrickson, B., (1976). Acquisition of complex assembly skills through use of systematic training procedures: Involving profoundly retarded adults. AAESPH Review, 1, 14-25.

Sprague, J., & Horner, R. H. (1984). An experimental analysis of generalized vending machine use with severely handicapped students. Journal of Applied Behavioral Analysis, 17 (2), 273-278.

Vogelsberg, R. T., & Rusch, F. R. (1979). Training severely handicapped students to cross partially controlled intersections. AAESPH Review, 4, 264-273.

Wacker, D., & Berg, W. (1983). Effects of picture prompts on the acquisition of complex vocational tasks by mentally retarded adolescents. Journal of Applied Behavior Analysis, 16, 417-433.

Wehman, P. (1981). Competitive employment: New horizons for severely disabled individuals. Baltimore: Paul H. Brookes.

Wehman, P. (1984). Transition for handicapped youth from school to work. In J. Chadsey-Rusch (Ed.), Conference Proceedings from "Enhancing Transition from School to the Workplace for Handicapped Youth". Urbana-Champaign, Illinois: Office of Career Development for Special Populations, University of Illinois.

Wehman, P., Renzaglia, A., & Bates, P. (1985). Functional living skills for moderately and severely handicapped individuals. Austin, TX: Pro-Ed.

Wehman, P., Schutz, R., Bates, P., Renzaglia, A., & Karan, O. (1978). Self-management programs with mentally retarded workers: Implications for developing independent vocational behavior. British Journal of Social and Clinical Psychology, 17, 57-64.

Wilcox, B. & Bellamy, G. T. (1982). Design of high school programs for severely handicapped students. Baltimore: Paul H. Brookes.

Will, M. (1984). OSERS programming for the transition of youth with disabilities: Bridges from school to working life. In J. Chadsey-Rusch (Ed.), Conference Proceedings from "Enhancing Transition from School to the Workplace for Handicapped Youth". Urbana-Champaign, Illinois: Office of Career Development for Special Populations, University of Illinois.

Wolfensberger, W. (1972). Principles of normalization. Toronto: National Institute of Mental Retardation.

Zohn, C., & Bornstein, P. (1980). Self monitoring of work performance with mentally retarded adults: Effects upon work productivity, work quality, and on-task behavior. Mental Retardation, 18, 19-25.

Table 1

Steps for Secondary Preparation for Employment

1. Identify Available Jobs in the Community
2. Assess Job Requisites (Entry Level Skills)
3. Establish Work Performance Objectives
4. Assess Student Performance and Develop Individualized Education Program.
5. Teach Students to Perform Entry Level Skills in Community-Based Employment Training Programs
6. Place Students in Target Placement
7. Teach Students to Perform New Skills and to Maintain Entry Level Skills
8. Systematically Withdraw Post-Placement Instruction Program